

2. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence that:
- (a) encodes the amino acid sequence shown in SEQ ID NO: 2; and
 - (b) hybridizes under highly stringent conditions to the nucleotide sequence of SEQ ID NO: 1 or the complement thereof.

Please add new claims 6-10 as follows:

--6. (New) An isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 1.

7. (New) A recombinant expression vector comprising the isolated nucleic acid molecule of claim 1.

8. (New) The recombinant expression vector of claim 7, wherein the isolated nucleic acid molecule encodes the amino acid sequence shown in SEQ ID NO:2.

9. (New) The recombinant expression vector of claim 8, wherein the isolated nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO: 1.

10. (New) A host cell comprising the recombinant expression vector of claim 7.--

RESPONSE

I. Restriction Requirement

The Examiner has determined that the original claims are directed to two separate and distinct inventions under 35 U.S.C. § 121, as follows:

- Group I: Claims 1-3, said to be drawn to polynucleotides encoding the protein set forth in SEQ ID NO:2, classified in class 536, subclass 23.5; and
- Group II: Claims 4 and 5, said to be drawn to polynucleotides encoding the protein set forth in SEQ ID NO:16, classified in class 536, subclass 23.5.

II. Response to Restriction Requirement

In response to the Restriction Requirement, Applicants hereby elect without traverse to prosecute the claims of the Group I invention (claims 1-3), drawn to polynucleotides encoding the protein set forth in SEQ ID NO:2, classified in class 536, subclass 23.5. Accordingly, claims 4 and 5 have been canceled herein without prejudice and without disclaimer as being drawn to a non-elected invention.

Applicants reserve the right to refile claims to the non-elected invention in one or more future applications retaining the priority date of the present case and the earlier cited priority applications.

III. Status of the Claims

Claims 4 and 5, representing the Group II invention, have been canceled without prejudice and without disclaimer as being drawn to a non-elected invention. No claims of the Group I invention have been canceled. Claim 2 has been amended. Claims 6-10 have been added.

Claims 1-3 and 6-10 are therefore presently pending in the case. For the convenience of the Examiner, a clean copy of the pending claims is attached hereto as **Exhibit A**. In compliance with 37 C.F.R. § 1.121(c)(1)(ii), a marked up copy of the original claims is attached hereto as **Exhibit B**.

IV. Support for the Amended and Newly Added Claims

Claim 2 has been amended to recite that the stringent hybridization conditions are highly stringent hybridization conditions. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least at page 4, lines 23-31.

Claim 6 has been added to specifically recite an isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 1. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least in claim 1 as originally filed.

Claims 7-9 have been added to specifically recite recombinant expression vectors comprising isolated nucleic acid molecules of the present invention. Support for these claims can be found throughout the specification as originally filed, with particular support being found at least at page 13, lines 26-32.

Claim 10 has been added to specifically recite host cells comprising the recombinant expression vectors of claim 7. Support for this claim can be found throughout the specification as originally filed,

with particular support being found at least from page 13, line 32 to page 14, line 5.

It will be understood that no new matter is included within the amended or newly added claims.

V. Inventorship

As a result of the present response to the Restriction Requirement, Applicants respectfully request amendment of the inventorship of the present application under 37 C.F.R. § 1.48(b)(1) in order to remove an inventor of the non-elected claims, since his invention is no longer being claimed in the present application as amended. The inventor *that is requested to be removed* as a result of the cancellation of the non-elected claims as a result of the response to the restriction requirement is John Scoville. The inventors of the remaining claims are, therefore, D. Wade Walke, Gregory Donoho, Erin Hilbun, Brian Zambrowicz, and C. Alexander Turner, Jr.

As set forth under 37 C.F.R. § 1.48(b)(2), the Commissioner is hereby authorized to charge the fee required under 37 C.F.R. § 1.17(i) for this amendment and request to correct inventorship to Deposit Account No. 50-0892.

VI. Conclusion

The present document is a complete response to the Restriction and Species Election Requirement. Applicants believe that the claims of the instant application meet all of the conditions for patentability and are in condition for allowance. Accordingly, an early indication of the same is respectfully requested. Should Examiner Swope have any questions or comments, or believe that certain amendments of the claims might serve to improve their clarity, a telephone call to the undersigned Applicants' representative is earnestly solicited.

Respectfully submitted,

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Date



David W. Hibler
Agent for Applicants

Reg. No. 41,071

LEXICON GENETICS INCORPORATED
(281) 863-3399

